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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,109	10/08/2003	Shinji Ohta	243659US6	4453

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EXAMINER	
ALUNKAL, THOMAS D	

ART UNIT	PAPER NUMBER
2627	

NOTIFICATION DATE	DELIVERY MODE
04/03/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/680,109	OHTA ET AL.	
	Examiner	Art Unit	
	THOMAS D. ALUNKAL	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/29/08 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoi et al. (hereafter Yokoi)(US 6,487,149).

Regarding claims 1, 5 and 9, Yokoi discloses a method and a disk drive comprising: an optical head configured to emit a laser beam so as to illuminate a disk-shaped storage medium thereby writing or reading data on or from the disk-shaped

storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped storage medium, pre-pits being formed on the lands between adjacent grooves (Figure 1, Element 5, *pickup*, and Figure 4E), a push-pull signal generator configured to generate a push-pull signal from reflected-light information detected by the optical head (Figure 2, Element 63, *differential amplifier which produces a push-pull signal*); an amplitude variation signal generator secondarily connected to the push-pull signal generator and configured to generate and output a fundamental amplitude variation signal indicating the fundamental amplitude variation of the push-pull signal (Figure 2, Element 30, *peak hold circuit*); an offset signal generator configured to generate an offset signal (Figure 2, Element V2), a reference signal generator connected to the amplitude variation signal generator and to the offset signal generator and configured to generate a reference signal by adding the offset signal received from the offset signal generator to the fundamental amplitude variation signal received from the amplitude variation signal generator (Figure 2, Element 32, summing amplifier inputting offset signal and amplitude variation signal), and a pre-pit detector directly connected to the push-pull signal generator and to the reference signal generator and configured to compare the push-pull signal with the reference signal and outputting a comparison result as a pre-pit detection signal (Figure 2, Element 34, *comparator outputting pre-pit signal. It is further noted that the output of HPF(10) is the push-pull signal itself. Therefore, comparator(34) is directly connected to the pre-pit detector(63) because the push-pull signal is not substantially changed.*). Yokoi does not disclose where the amplitude variation signal generator is *directly* connected to the

push-pull signal generator. Rather, Yokoi discloses a BPF(13) acting on the push-pull signal to create a wobble signal before entering peak hold circuit(30).

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to directly connect push-pull signal generator(63) to the peak hold circuit(30) of Yokoi, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Furthermore, it is noted that connecting peak hold circuit(30) directly with the push-pull signal from push-pull signal generator(63) does not affect the pre-pit detection process performed by comparator(34). Therefore, the preceding simple rearranging of parts involves only routine skill in the art, as there are no adverse or unexpected results which occur.

Regarding claim 2 and 6, Yokoi discloses wherein the disk-shaped medium represents, using the pre-pits, address information indicating an address on the disk, and the disk further comprising an address decoder for acquiring address information represented by the pre-pits, from the output of the pre-pit detector (Column 4, lines 43-62).

Regarding claim 3,7, and 10, Yokoi discloses wherein the fundamental amplitude variation signal is a signal reflecting at least the amplitude variation of the push-pull signal due to wobbling of grooves and due to noise (Column 5, lines 20-42).

Regarding claim 4,8, and 11, Yokoi discloses wherein the amplitude variation signal generator includes a charging circuit for charging a capacitor in response to an increase in amplitude of the input push-pull signal, in a peak holding manner with a predetermined time constant, a discharging circuit for discharging the capacitor such

that the charged voltage of the capacitor falls down with a predetermined time constant, whereby a signal corresponding to the charged level of the capacitor is output as the fundamental amplitude variation signal (Figure 14, Element 732, and Column 16, lines 19-28. *Note, capacitor performs charging and discharging function*.)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshida et al. (US 6,603,726) discloses a pre-pit detection unit. Yanagawa et al. (US PgPub 2002/0114261) discloses an apparatus for synthesizing signals derived from an optical disc. Ueno (US PgPub 2003/0058764) discloses an optical disc device which performs land pre-pit detection. Kato et al. (US 6,928,041) discloses a pre-pit detecting apparatus for optical recording medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS D. ALUNKAL whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas D Alunkal/
Examiner, Art Unit 2627

/Wayne R. Young/
Supervisory Patent Examiner, Art Unit 2627